

REMARKS/ARGUMENTS

Claims 119-123 are pending in this application and are rejected on various grounds. The rejections to the presently pending claims are respectfully traversed.

Claim Rejections – 35 U.S.C. §101 and §112, First Paragraph

Claims 119-123 remain rejected under 35 U.S.C. §101 allegedly “because the claimed invention lacks a credible, specific and substantial asserted utility or a well established utility.”

Claims 119-123 remain further rejected under 35 U.S.C. §112, first paragraph, allegedly “since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility, one skilled in the art would not know how to use the claimed invention.”

Specifically, the Examiner maintained rejections based on the gene amplification assay (see pages 3-6 of the Office Action). Without acquiescing to the propriety of the rejection but solely in the interest of advancing prosecution in this case, and as discussed in the previous response, Applicants rely on assay 94: 'the glucose/FFA uptake assay,' for support of patentable utility of the PRO1182 polypeptide. Hence, rejections directed to the gene amplification assay are considered moot.

The Examiner further rejects utility based on 'the adipocyte glucose/FFA uptake assay,' (Example 149) and says that “each of the references cited by the Applicants teaches that the agents utilized in the assays enhance glucose uptake by adipocyte cells, not inhibit glucose uptake...” (see page 7, lines 11-12 of Office Action; emphasis added). On page 8, line 18 of the Office Action, the Examiner states that “the proposed use of the claimed PRO1182 polypeptides is simply a starting point for further research and investigation into potential practical uses of the polypeptides.” Applicants respectfully disagree. The Examiner’s is also concerned that “the instant specification does not report any specific or statistical differences,” or in other words, the Examiner is concerned with the *efficacy* with which the PRO1182 polypeptides enhances glucose uptake. Applicants submit that these concerns are misplaced and cannot be proper basis for a utility rejection of the present claims.

Arguments:

a) PRO1182 is a stimulator of glucose and/or FFA uptake

Initially, Applicants submit that due to an error, the PRO1182 molecule was inadvertently indicated as an inhibitor of glucose uptake in the previous response filed on June 23, 2005. On the other hand, as clearly indicated in the instant specification, at least in Example 158, page 530, lines 13-15, PRO1182 is a stimulator of glucose and/or FFA uptake in the assay and therefore enhances glucose uptake by adipocyte cells. Hence, any rejections directed to the PRO1182 molecule as not enhancing glucose uptake are rendered moot.

Furthermore, Applicants respectfully submit that antibodies to PRO1182, for instance, agonistic antibodies, would be useful to enhance glucose uptake by adipocyte cells, either alone or synergistically in conjunction with other drugs. Therefore, as asserted before, antibodies to PRO1182 have utility and would be therapeutically effective in treating disorders including, but not limited to, include obesity, diabetes, and hyper- or hypo-insulinemia.

b) One Skilled in the Art would know how to make and use the variant proteins without undue experimentation based on the teachings in the art and in the specification

Applicants submit that based on the above arguments, Applicants have clearly demonstrated a credible, specific and substantial asserted utility for the PRO1182 polypeptide and its antibodies, in enhancing glucose/FFA uptake. Furthermore, based on the disclosure in the specification, the well-established knowledge in the art (at the effective date of filing) regarding agents that modulate or regulate glucose uptake and their usefulness in treatment of metabolic diseases, one skilled in the art would have known how to make and use antagonists to the claimed PRO1182 polypeptide and would know how to use them to enhance glucose uptake. As the M.P.E.P. states, "[t]he fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation."¹ As discussed above, a considerable amount of experimentation is permissible, if it is merely routine. Thus, one skilled in the art would know how to make and test the antibodies in this glucose/FFA uptake assay.

¹ M.P.E.P. §2164.01 citing *In re Certain Limited-charge Cell Culture Microcarriers*, 221 U.S.P.Q. 1165, 1174 (Int'l Trade Comm'n 1983), *aff' sub nom. Massachusetts Institute of Technology v. A.B. Fortia*, 774 F.2d 1104, 227 U.S.P.Q. 428 (Fed. Cir. 1985).

c) **The precise mechanism need not be understood for attaining the asserted utility**

Applicants respectfully submit that, the fact remains that the results of the adipocyte glucose/FFA uptake assay was positive for the PRO1182 polypeptide, and that indicates that antibodies to PRO1182, like agonistic antibodies, are useful in further enhancing glucose uptake by adipocyte cells, as discussed above. The Examiner's concern that the results were an invitation to experiment further, whether correct or incorrect, do not negate the positive results of the assay, and further, do not negate the action of the PRO1182 polypeptides and its antibodies or Applicants' assertion of utility. One of ordinary skill in the art, in possession of these results, would, more likely than not, believe that the PRO1182 antibodies are useful for their asserted utility, as is further discussed below.

Regarding the Examiner's concern regarding the *efficacy* of the PRO1182 polypeptides to enhance glucose uptake, Applicants submit that, it appears that the Examiner's concern is with regard to the underlying mechanism due to which the positive results of the adipocyte glucose/FFA uptake assay occur, and not with the results themselves. However, as stated by the Federal Circuit, "it is not a requirement of patentability that an inventor correctly set forth, or even know, how or why the invention works." *In re Cortwright*, 165 F.2d 1353, 1359 (Fed. Cir. 1999). Thus, the precise mechanism for the asserted utility need not be understood for attaining the asserted utility.

The Examiner adds regarding the supportive references cited by the Applicants in the previous response that "Tafari *et al.*, Sandouk *et al.*, Goldwaser *et al.*, Mueller *et al.* (1998) and Mueller *et al.* (2000) *teach different methodologies* for the measurement of glucose uptake in adipocyte cells as compared to the glucose assay of the instant specification....None of the references utilizes the stimulatory and inhibitory scale disclosed in the instant specification...the instant specification does not report any specific or statistical differences and there is no indication in the specification as to how PRO1182 inhibited glucose uptake as compared to control or whether the results were significant." (Emphasis added; see last paragraph bridging pages 8-9 of the Office Action).

Applicants submit that such a rejection again lacks a proper basis for a utility rejection. The present glucose/FFA assay/method need not be the same or superior to other methods for attaining the asserted utility. The Federal Circuit has stated that "[a]n invention need not be the

best or only way to accomplish a certain result, and it need only be useful to some extent and in certain applications: “[T]he fact that an invention has only limited utility and is not operable in certain applications is not grounds for finding lack of utility.” *Envirotech Corp. v. Al George, Inc.* 730 F.2d 753,762, 221 U.S.P.Q. 473,480 (Fed. Cir. 1984).” *Stiftung v. Renishaw PLC* 945 F.2d 1173, 1180 (Fed. Cir. 1991). In fact, the Examiner herself acknowledges that “similar assays are commonly used to identify potential anti-diabetic agents and to examine the regulatory mechanisms of important molecules involved in fat cell metabolism” (emphasis added; see page 8, lines 2-4 of the Office Action). Therefore, as asserted before, PRO1182 polypeptides and their antibodies would be therapeutically useful in treating disorders including, but not limited to, include obesity, diabetes, and hyper- or hypo-insulinemia.

Accordingly, Applicants respectfully submit that the Examiner’s comments fail to support a *prima facie* case of lack of utility and the Examiner is requested to reconsider and withdraw the present rejection under 35 U.S.C. §101 and §112, first paragraph.


The present application is believed to be in *prima facie* condition for allowance, and an early action to that effect is respectfully solicited.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. **08-1641** (referencing Attorney’s Docket No. **39780-2730 P1C34**).

Please direct any calls in connection with this application to the undersigned at the number provided below.

Respectfully submitted,

Date: January 19, 2006

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